What is claimed is:

1. A diagnostic tool for an audio mixing system, comprising:

an information source storing at least interconnection characteristics

5   and apparatus settings in the system, relative to channel inputs;

a search function accessible by a user, which upon initiation polls the

information source; and

search criteria associated with the search function for establishing

specific information to be matched in a search;

10   characterized in that initiation of the search function causes the

search function to poll the information source, and to return channel

numbers for those channels that match the search criteria.

2. The diagnostic tool of claim 1 further comprising monitoring interfaces to

15   individual ones of channels in the audio mixing system, wherein the search

function samples real-time characteristics at said interfaces in individual

channels comparing the samples with search criteria.

3. The diagnostic tool of claim 2 wherein the monitoring interfaces include

20   at least one audio monitoring interface, wherein the search function samples

real-time audio in a channel for comparison to an audio characteristic

specified in search criteria.

4. The diagnostic tool of claim 1 further comprising a facility for saving

25   instances of the search function each with a name related to specific criteria

attached, and for selecting and initiating individual ones of the named search

functions to perform the associated search and to return channels found in

the search.

5. The diagnostic tool of claim 4 wherein the facility for selecting and initiating comprises a display apparatus for displaying individual ones of the search functions by name and selection inputs for selecting individual ones of the displayed search functions, to initiate the associated search.

6. The diagnostic tool of claim 4 further comprising a function for assigning channels returned by a search to specific ones of control strips of the mixer desk.

7. An audio mixing system, comprising:

a mixer desk including a user interface and control apparatus;

a mixing engine coupled to the mixer desk for mixing audio on input channels and providing an audio output;

computerized controls for managing activities of the mixing system; and

a diagnostic tool including an information source storing at least interconnection characteristics and apparatus settings in the system, relative to channel inputs, a search function accessible by a user, which upon initiation polls the information source, and search criteria associated with the search function for establishing specific information to be matched in a search;

characterized in that initiation of the search function causes the search function to poll the information source, and to return channel numbers for those channels that match the search criteria.

8. The system of claim 7 further comprising monitoring interfaces to individual ones of channels in the audio mixing system, wherein the search

function samples real-time characteristics at said interfaces in individual channels comparing the samples with search criteria.

9   The system of claim 8 wherein the monitoring interfaces include at least one audio monitoring interface, wherein the search function samples real-time audio in a channel for comparison to an audio characteristic specified in search criteria.

10. The system of claim 7 further comprising a facility for saving instances of the search function each with a name related to specific criteria attached, and for selecting and initiating individual ones of the named search functions to perform the associated search and to return channels found in the search.

11. The system of claim 10 wherein the facility for selecting and initiating comprises a display apparatus for displaying individual ones of the search functions by name and selection inputs for selecting individual ones of the displayed search functions, to initiate the associated search.

12. The system of claim 10 further comprising a function for assigning channels returned by a search to specific ones of control strips of the mixer desk.

13. A method for diagnosing problems in an audio mixing system having individual channels for audio inputs to the system, comprising the steps of:
          (a) preparing a generic search function capable of polling an information source in the system, the information source storing at least interconnection characteristics and apparatus settings in the system, relative to channel inputs;

(b) assigning search criteria to individual instances of the generic

search function, creating thereby specific search functions; and

(c) initiating individual ones of the specific search functions to poll

the information source, and to return channel numbers for those channels

5   that match the specific search criteria.

14. The method of claim 13 further comprising monitoring interfaces to

individual ones of channels in the audio mixing system, wherein, in step (c),

the search function samples real-time characteristics at said interfaces in

10   individual channels comparing the samples with the search criteria.

15. The method of claim 14 wherein the monitoring interfaces include at

least one audio monitoring interface, wherein the search function samples

real-time audio in a channel for comparison to an audio characteristic

15   specified in search criteria.

16. The method of claim 13 further comprising a facility for saving instances

of the search function each with a name related to specific criteria attached,

and for selecting and initiating individual ones of the named search functions

20   to perform the associated search and to return channels found in the search.

17. The method of claim 16 wherein the facility for selecting and initiating

comprises a display apparatus for displaying individual ones of the search

functions by name and selection inputs for selecting individual ones of the

25   displayed search functions, to initiate the associated search.

18. The method of claim 16 further comprising a function for assigning channels returned by a search to specific ones of control strips of the mixer desk.

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